Unit of Study: *Fractions, Decimals and Percents* 2010-2011 Grade: *5*

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| **Goals**  What do I want students to learn as a result of this unit? | * Students will compare and order fractions (like and unlike denominators) * Students will understand and maintain equivalence * Students will relate fractions to division problems * Students will think about fractions greater than 1 * Students will compare, add, subtract fractions using multiple strategies * Students will multiply fractions and whole numbers by fractions * Students will compare, add, and subtract mixed numbers * Students will understand relationship between fraction and decimal representations (money model for some decimal work) * Students will add, subtract, multiply and divide decimals * Students will understand the relationship between fractions, decimals and percents * Students will convert between fractions, decimals, and percents * Students will understand benchmark percents of 10%, 25%, 50%, 75% and 100% | |
| Prior Knowledge  What prior knowledge do students need to enter this Unit of Study? What routines do I expect students to know? |  | |
| Standards Addressed  What concepts will this unit address? |  | |
| Bends in the Road  What bends (or series of lessons) will support each of the goals for this unit? | * Exploring Fractions * Equivalency in Fractions * Functions and Calculations of fractions * Exploring Decimals and Percents | |
| **Ways to Challenge/Provide Extra Support**  Which students do I anticipate needing a challenge? Which students do I anticipate will need extra support? | **Challenge Strategies:**  -Multiplication/Division of Decimals | **Extra Support Strategies:** |
| **NECAP**  What academic vocabulary should I consider? What sample test problems could use (Math)? |  | |

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| Bend in Road: Exploring Fractions | | Materials | Notes |
|  | FRACTION Pre-Assessment |  |  |
|  | Explore with fractions kits- Cover up | *Fraction kits* | Pg. 267-269 |
|  | Optional second day fractions kits/activities | *kits* |  |
|  | Developing fraction sense | *Progress 4-4* |  |
| Putting fractions in lowest terms | *Progress 4-5* |  |
| How Much is Blue? | *p. 277-281*  *Enriching Your Math Curriculum*  *Schuster* |  |
| Put in Order | *p. 282-284*  *Enriching Your Math Curriculum*  *Schuster* | Manipulatives- Fraction Kits  Make differentiated sets for lower group |
|  | Division as fractional relationships: Rewriting division expressions as fractions | *Singapore pp131-* |  |
| Bend in Road: Equivalency in Fractions | |  |  |
|  | *Best Buys, Ratios, and Rates* Cat food |  |  |
|  | *Best Buys, Ratios, and Rates* Cat food |  |  |
|  | *Best Buys, Ratios, and Rates* Birdseed |  | money model |
|  | *Best Buys, Ratios, and Rates* Birdseed |  | money model |
|  | *Best Buys, Ratios, and Rates* Emporium |  | clock model |
|  | *Best Buys, Ratios, and Rates* Emporium |  | clock model |
|  | *Best Buys, Ratios, and Rates* Gas Tank |  | double #line |
|  | *Best Buys, Ratios, and Rates* Gas Tank |  | double #line |
|  | Recognize, write, name, and draw improper fractions and mixed numbers. | Progress pp148 4-8  Singapore |  |
|  | Adding and subtracting with improper fractions and mixed numbers within a problem solving context | Visual approach with denominator work to reinforce |  |
|  | The Comparing Game  Review Finding LCD | *p. 274-275*  *Enriching Your Math Curriculum*  *Schuster* | With Improper Fractions and Mixed Numbers |
| Bend in Road: Functions and Calculations of fractions | |  |  |
|  | Strategies for adding and subtracting mixed numbers/improper fractions |  | Singapore pp.140-152 |
| Strategies for adding and subtracting mixed numbers/improper fractions |  | pp.140-152 |
| Multiplying Fractions – Area Model and Algorithm | *Common Core language:* find the area of a rectangle with fractional side lengths | Singapore 165-175 |
| Multiplying Fractions |  |  |
| Fractions Review Day |  |  |
| ASSESSMENT on Fractions |  |  |
| Bend in Road: **Exploring Decimals and Percents** |  |  |
| Understanding decimal notation to the thousandths place (INTRO decimals) |  | Use decimal grids from TERC for homework and extensions |
| Decimals on a number line | *TERC Unit 6 1-3* |  |
| Decimal Garden | *p. 285-286*  *Enriching Your Math Curriculum*  *Schuster* | With mental math string |
| Decimal Garden | *p. 285-286*  *Enriching Your Math Curriculum*  *Schuster* | With mental math string |
| Label Fraction Bars as Percents |  |  |
| Place Value Round Robin | *p. 290*  *Enriching Your Math Curriculum*  *Schuster* | With mental math string (decimals) |
| Place Value Round Robin | *p. 290*  *Enriching Your Math Curriculum*  *Schuster* | With mental math string |
| Building Decimals | *p. 293*  *Enriching Your Math Curriculum*  *Schuster* | With mental math string |
|  | Building Decimals | *p. 293*  *Enriching Your Math Curriculum*  *Schuster* | With mental math string |
|  | Bend in Road: **Using Decimals and Percents** |  |  |
|  | Adding and Subtracting Decimals |  |  |
|  | Multiplying and Dividing Decimals |  |  |
|  | Multiplying and Dividing Decimals |  |  |
|  | Converting decimals to percents and percents to decimals |  |  |
|  | ASSESSMENT |  |  |